

COE ORDER# 4700.1  
94 RF 11128



EG&G ROCKY FLATS, INC.  
ROCKY FLATS PLANT, P.O. BOX 464, GOLDEN, COLORADO 80402-0464 • (303) 956-7000



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94-RF-11128

TRANSMITTAL OF DRAFT FINAL OPERABLE UNIT (OU) 9 TECHNICAL  
MEMORANDUM NO. 1 ADDENDUM TO PHASE I RCRA (RESOURCE  
CONSERVATION & RECOVERY ACT) FACILITY INVESTIGATION/REMEDIAL  
INVESTIGATION (RFI/RI) WORK PLAN, FIELD SAMPLING PLAN, VOLUME II -  
PIPELINES - CDC-014-94

**Action:** None Required

Enclosed is six copies of the Draft Final OU 9 Technical Memorandum No.1 Addendum to Phase I RFI/RI Work Plan, Field Sampling Plan, Volume II - Pipelines. Rocky Flats Field Office (RFFO) comments have been incorporated. A response to RFFO comments is also attached.

If you have any questions regarding this Technical Memorandum, please call C. D. Cowdery at extension 6953 or B. D. Peterman at extension 8659.

C. D. Cowdery

C. D. Cowdery  
Project Manager - OU 9

Attachments:  
As Stated

CDC:mrm

CC:

J. R. Burd, Scientific Applications International Corporation w/o Attach.  
J. M. Roberson, DOE/RFFO w/o Attach.  
S. W. Slaten, " " " "

CLASSIFICATION:

CONFIDENTIAL		
UNCLASSIFIED	X	
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER  
SIGNATURE

~~DOCUMENT CLASSIFICATION~~  
~~REVIEW WAIVER PER~~  
~~ATC CLASSIFICATION OFFICE~~

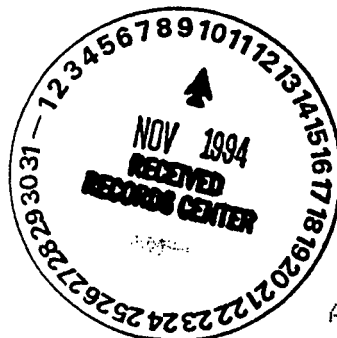
REPLY TO RFP CC NO:

SECTION ITEM STATUS  
PARTIAL/OPEN

APPROVALS:

FIG & TYPIST INITIALS

ADMIN RECORD



A-0109-000244

# AMER REVIEW OF TECHNICAL DOCUMENTS

## REVIEW COMMENT RECORD

Document Reviewed: OU9 TM1 - Pipelines		Reviewer: J.R. Burd Signature: Date: Sept. 12, 1994 Phone: x8252 Organization: ER/RFO		Agreement with Dispositions: Date: Reviewer: Document Preparer:	
*Comment Type: E = Essential (agreement must be documented for other than verbatim incorporation); S = Suggested; Non-C = Nonconcurrence					
Comment No.	Comment Type*	Para. No.	Comment	Disposition	
1	E	TITLE	The title should include "Volume 2" as is stated in the second paragraph of Vol 1. That document states that TM1 will be separated into 2 volumes, one for the tanks and the second for pipelines. Paragraph 1 of this (the pipeline volume) says that this is Vol 2.	The words "Volume II" were added after "Technical Memorandum No. 1," before "Pipelines reference."	
2	E	1.0 - 2nd paragraph	Change CDH to CDPHE and properly spell out one time.	CDH was changed to CDPHE.	
3	E	1.0 - 3rd paragraph	Indicate that the subject is this TM. The last antecedent is the work plan.	An introductory sentence was added to identify the subject of the paragraph.	
4	E	1.1	Indicate that IHSS number for the pipelines. The 2nd para. and table 1.1 indicate duplicate IHSS #s but do not specify IHSS 121 as the OPWL.	Pipeline IHSS number 121 was added to the first sentence of this paragraph.	
5	E	1.1	Table 1.1 indicates which pipelines are part of the new process waste system (PWTS). Are the parts of the OPWL that are included in the PWTS active?	Yes, where portions of the OPWL have been converted to PWTS, the PWTS system is considered to be active. These portions are, therefore, not being investigated under this Technical Memorandum No. 1, Volume II.	
6	S	1.1	Switch "OU4" and "the Solar Ponds" in the last sentence in the 3rd paragraph.	Change was noted and made.	

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# AMER REVIEW OF TECHNICAL DOCUMENTS

## REVIEW COMMENT RECORD CONTINUATION SHEET

7	E	1.1	The 4th paragraph refers to those pipeline sections that will not be investigated as part of this TM. They include sections that have been transferred to the PWTS, pipelines that are used in the fire plenum, discharge system, and those to be removed as part of OU4. Table 1.1 should flag these pipelines as not being investigated under this TM.	Footnotes have been added to Table 1.1 to highlight this issue in the comment column.
8	E	1.1	The regulatory history of the OPWL should be included in the background section. This is important because it is essential to establish the closure options available especially for the active units. Our experience with the active tanks issue shows the need to be clear as early as possible with regulatory issues.	Background regulatory history information was added to clarify the regulatory options for closure.
9	E	1.1	Table 1-1 "comments" column should be checked against Appendix B of the OU9 Work Plan. The source of the information used to make this table should be referenced because the information in App B is not always consistent with the data presented. For instance comments for P-7 indicates that this line is PWTS but App B says that the current use is "abandoned." App B does not indicate that P-7 is part of the PWTS. P-18 is not referred to as an invalid location in App B.	Table 1-1 and Appendix D were checked against OU9 Work Plan Appendix B. New information on pipelines has been obtained from building managers and others during Jacobs' limited background review and verification. Some of the OU9 Work Plan Appendix B information was updated. References are added.
10	E	1.2	The last paragraph makes a weak statement that the OU9 investigation is being integrated with other Industrial Area OUs. Strengthen this statement with a reference to the Integrated FSP that was submitted to the agencies this summer. The agencies commented on the lack of coordination with other Industrial Area OUs in Vol 1 of this TM.	An additional paragraph was added that identifies integration activities, e.g., Integrated Field Sampling Plan for the Industrial Area.

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### REVIEW COMMENT RECORD CONTINUATION SHEET

11	E	2.1	We should have a bullet for any active OPWL pipelines that are not in active permits if any were identified. This would be consistent with plenum deluge tanks in Vol 1.	Bullets were to identify (1) active OPWL pipelines that are not in active permits and (2) OPWL pipelines that have been converted to the Fire Plenum Deluge System.
12	S	2.1	The isotope number for Pu is probably wrong in the second paragraph on page 4 of 8.	Pu-235 was corrected to Pu-239.
13	E	2.1	Please clarify the differences in the criteria given in the second paragraph on page 4 of 8 for discharging to either South Walnut Creek or the Solar Ponds. No distinction is given in these sentences as they are now worded.	A paragraph of historical Building 774 acceptance criteria has been added to clarify discharge standards. A reference was added for this information.
14	E	3.0 P-1	The text should reference the plate number on which the pipeline section is shown. This is true of all pipeline descriptions in this section.	References to the plate number(s) on which the pipeline is shown were added in the text under each pipeline description.
15	E	3.0 P-2	Plate 11 does not show P-2 as 452 feet total length. In fact, the plate shows P-2 but it seems to only exit Building 123.	Section 2-2 clarifies the fact that the majority of P-2 runs under Bldg. 123 and is not subject to investigation under Technical Memorandum No. 1, Volume II.
16	S	3.0 P-3	The second and third man holes described in the site walk paragraph may not be shown on Plate 11. Was this intended because they do not seem to be associated with P-3?	These manholes are shown on Plate 11. They are designated as Test Areas P-3, TA3, P-3, and TA4.
17	E	4.0	Better define or explain the bulleted items. How are these decision making issues? Use some other item than "stages" because that is a term used in the work plan. TM1 is the Stage 1 investigation.	Bullets are referenced to Section 4.3, which provides further definitions of each step. The term "stages" was redefined as "steps."

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## REVIEW COMMENT RECORD CONTINUATION SHEET

18	E	4.0 + Fig 4-1	<p>Can we at this time identify the pipeline sections that will be in the "Pipeline Dismissal from OU9" box? This should have been determined by the site walk that preceded the TM preparation.</p> <p>Rename the "dismissal" box. It should not lead to the "Stage 1 Invest. Completion" box because the investigation will not be done if it is removed from OU9. Dismissal from OU9 is the end of the line for those systems.</p> <p>Pipelines that are used for other purposes (second bullet in the first box) will go in a place holder. Pipeline segments which have existence in question should not be dropped from OU9 until the non-existence is confirmed. Pipelines that are part of the PWTS probably will need confirmation of inclusion in from OU9. These will probably still go in a place holder until inactive (same as permitted active tanks such as T-24). The place holder will be outside of OU9 so that OU9 milestones are not impacted. These issues are currently under discussion via the dispute resolution process for the tanks in Vol 1 of this TM. See last comment.</p>	<p>At this time, four pipelines fall into the Dismissal/Removal category: P-8, P-18, P-52, and P-57. No historical documentation has been found to support their existence. Field verification/characterization techniques will be used as the last steps to provide nonexistence confirmation (e.g., geophysical techniques indicate no anomaly); then these four pipelines can be removed from OU9.</p> <p>Text changed to reflect correction as noted. "Dismissed" has been deleted and replaced by "removed" throughout text and figures.</p> <p>In the text, a "place holder" was added for deferral of characterization/ investigation until current operations, conditions, or special circumstances dictate a delay. Figures 4-1 and 4-2 also identify a deferral option.</p>
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# AMER REVIEW OF TECHNICAL DOCUMENTS

## REVIEW COMMENT RECORD CONTINUATION SHEET

18 (cont)			<p>Explain the criteria for moving out of the "Pipeline Field Sampling" box directly to the "Stage 1 Invest. Completion" box. Conditions not conducive to soil disturbance is not sufficient for calling the investigation complete. "These conditions may result in deferral of the investigation under the work plan provision (in Section 7.1) that "some abandoned pipelines and tanks...cannot practically be investigated at this time due to the nature of the RFP and the potential for disruption of operations..." Operation of this box may lead to the place holder. See last comment.</p> <p>Explain the "Confirmation Soil Sampling" in the "Pipeline Integrity Evaluation" box. If this is sampling for previously removed tanks it should be in the previous box. Explain what confirmation soil sampling has to do with integrity evaluation if the bullet stays in this box.</p>	<p>Figures 4-1 and 4-2 and associated text have been revised to correct and clarify logic paths. Because some deferrals may not be returned to active OU9 status for years, it was thought their D&amp;D would be performed outside OU9.</p> <p>Confirmational soil sampling along the pipeline trench at 20-foot intervals will be used to detect releases from the pipeline to the environment. Confirmation soil sampling will only be performed if contamination has been identified at a specific test area.</p>
19	E	4.1	<p>We may be creating a situation that will make it more difficult to meet milestones by combining stage 1, 2, and 3 activities. Therefore, we must make all proposed stage 2 and 3 activities contingent on schedule relief. Can these activities convert to the PAM process outside of the TM investigation? If so this is a possible alternative</p>	<p>The statement "in the event that characterization activities identify potential threats to public health and the environment, a Proposed Action Memorandum may be considered" was added to this section.</p>

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## AMER REVIEW OF TECHNICAL DOCUMENTS

### REVIEW COMMENT RECORD CONTINUATION SHEET

19 (cont)			<p>to obtaining schedule relief, i.e., propose stage 2 &amp; 3 activities contingent upon schedule relief or as part of a PAM.</p> <p>Rationale for limiting the use of test pits can also be based on the exemption in the approved OU9 Work Plan that is quoted in part above in comment 18. Test pits may in some cases be disruptive to plant operations. This would be especially true of deep pits that require excessive cut slopes or large staging areas for materials, soil piles, and safety equipment or other equipment.</p>	Text was revised to reflect the OU9 Work Plan rationale for use of observational approach options as an alternative to test pits.
20	E	4.2	Clarify the statement in which the total number of test areas is actually greater than tentatively identified number of test areas. Based on the common locations of test areas for multiple pipelines, the total number should be less than the tentatively identified number.	Text has been reworded to indicate that, although there are 309 potential test area locations, there are currently 163 test areas proposed because of the overlap in test areas from one pipeline to another.
21	E	4.2	The paragraph after the bullets describing the investigation goals says that the appropriate sample method selected will be based on three criteria including "composition." Please explain what is meant by "composition."	Sentence has been clarified. One criteria to be used to determine sampling method, locations, etc., for a given pipeline was the pipeline "composition," e.g., stainless steel, carbon steel, transite, clay.
22	E	4.2	Groundwater samples from Geoprobe methods - Explain what criteria will be used to determine when these samples will be collected. Propose a method to collect these samples and evaluate the data without impacting schedule. Can this method convert into a PAM to separate it from the TM investigation and thereby not impact schedule?	Section 5.2.3 describes Hydropunch and Geoprobe sample methodology and criteria. Figure 5-1, taken from the RFI/RI Work Plan, identifies groundwater sampling criteria for probes and boreholes.

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## REVIEW COMMENT RECORD CONTINUATION SHEET

23	E	4.3	<p>Figure 4.2 has some of the same problems as fig 4-1. That is investigation of active pipelines cannot be deferred and then made a part of TM2. They must be removed from the TM1 investigation and put in a placeholder. See last comment.</p> <p>If all or part of the pipeline is part of another OU, should it be <u>automatically</u> transferred to that OU? Why not determine the best place for it based on similarity of <u>historic use, potential for early action, or probable consistent remedial action?</u></p> <p>Pipelines that are known to be active (see Table 4-8) or fit other criteria for deferring investigation should be identified in the text. This would assure that the regulators will be aware of DOE's intent and rationale can be included to minimize regulator objection. P-23 is part of the plenum deluge system and supports the vital safety system. If DOE is successful in the current dispute regarding active tanks that support this system the pipelines will automatically be excluded when identified.</p> <p>Delete "yes" after the "See Fig. 4-4" box because this is not a decision point, there is not a "no" option.</p>	<p>Text and figures changed to reflect corrections as noted. Figure 4-1 now incorporates a deferral box that will act as a place holder.</p> <p>Test changed to reflect conditions that might facilitate pipeline transfer to another OU.</p> <p>Modifications to the text and tables have been made to address pipelines that may be deferred due to current use as a fire plenum, new PWTS status, or OU4 activity.</p> <p>Comment/correction noted in Fig. 4-2.</p>
24	E	Figs. 4-1 thru 4-4	<p>Follow logic through each path of these diagrams. There appears to be some logic "busts" as pointed out above. These logic diagrams must be reviewed as a group as they are inter-related. The inter-relation to Fig 4-1 is not clear, the start points for A through F should be located on 4-1 if applicable.</p>	<p>The flow and logic has been followed through each diagram. Changes were made where errors or "busts" were identified.</p>



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### REVIEW COMMENT RECORD CONTINUATION SHEET

25	E	Table 4-2	Check references in this table to Figs. 4-1 to 4-4. In the second narrative box a reference is made to decision box 1.30, which is on Fig. 4-2. 1.30 is not shown as a decision box, the appropriate reference is probably 1.20.	Tables and figures were reviewed and changes/corrections were made.
26	E	4 General	"Dismissal" of pipelines from OU9 may need to be modified based on the results of dispute resolution of the active tanks issues under TM1 Vol 1 that are now underway. Active units may be removed from current investigations beyond the stage 1 "nature of contamination" type sampling, may remain in OU9, and take a delayed path toward closure. These units would be separated from the process leading toward IAG milestones. Therefore, revision of Vol 2 should be consistent with the results of the Vol 1 dispute regarding handling of active tanks.	Volume I - Outside Tanks - dispute resolution is still ongoing. However, deferral options have been added to text in Section 4.0, and the regulatory permit status of pipelines has been investigated and documented (to the extent possible).
27	E	Sec 4 Table	The tables should reference the appropriate figure; i.e. Table 4-2 should reference Fig 4-2, Table 4-3 should reference in the table heading Fig 4-3, and Table 4-5 should reference Fig 4-4.	All tables and figures have been cross-referenced.
28	E	4.3.3	Delete "or simply move on the next pipeline to be investigated" from the second to last sentence. Investigation of the different pipeline segments should not be linked. This section does not mention dismissal from OU9, which is the topic stated in the heading.	Text changed to reflect corrections as noted.
29	S	4.3.4	Change the wording of the 2nd sentence to eliminate the "was determined to be" wording.	Text changed to reflect corrections as noted.

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## REVIEW COMMENT RECORD CONTINUATION SHEET

30	E	4.3.4.1	<p>Figure 4-4 in step 3.82 says "collect residue/wipe sample from access." How is this to be done if the pipeline was not exposed by a test pit? This box can be reached by soil sampling from auger drilling or hydraulic sampling methods which would not provide access to the pipeline.</p> <p>Figure 4-4 after step 4.10 has a "go to D" road sign, but this road sign is shown as a fork without necessary decision criteria. One fork at this road sign goes nowhere. Step 4.11 at this same location is missing.</p>	<p>Figure 4-4 has been changed to reflect corrections in logic.</p> <p>Text was changed to reflect corrections in logic and positioning in 4.11 reference.</p>
31	E	4.4.4.2	Reword the last sentence "They also allow for future disposal criteria."	Text changed to reflect correction as noted.
32	E	4.3.5.1	<p>Confirmation soil sampling as proposed in the TM at 25 foot centers along the entire pipeline system will be extensive and is not proposed in the approved work plan. This is similar to a Stage 2 proposal to sample soils at 20 foot intervals between test pits that were contaminated. This section must be revised to propose sampling only if contamination is found in the test areas sampled. The observational approach will be used to indicate which areas will be sampled at 20 or 25 foot centers.</p>	Text corrected to reflect RF1/R1 OU9 Work Plan SOW at test areas where contaminations is identified. Soil borings and/or hydraulic drive point methods will be used to determine the extent of contamination in the pipeline trench.

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# AMER REVIEW OF TECHNICAL DOCUMENTS

## REVIEW COMMENT RECORD CONTINUATION SHEET

33	E	General	<p>We should have data from previous data compilation activities as specified in Section 7.2.4 and 7.3.1 of the Work Plan that will guide the investigation under TMI and the Stage 1 sampling. It appears that TMI is still gathering data that was to be the basis for its preparation (W.P. Sec. 7.2.3). The TM should specify that the data compilation process already conducted did not provide the information needed to designate sample locations in TMI and the statement should support this situation with a list of actions conducted during data compilation that were unsuccessful in providing the data. This is necessary to document that the data compilation actions described in the work plan were conducted and that this volume is not deficient.</p>	<p>New information has been received by Jacobs since the RF1/R1 OU9 Work Plan was written. The results of interviews Building Managers discussions, etc. have been incorporated into Vol II text in an ongoing basis to accurately reflect the latest site conditions/information. References have been added to the text to reflect the source(s) of this information.</p>
34	E	5.1.2	<p>Is the EMD OPs GT30, <i>Autonomous Operation of Global Positioning Equipment</i> used correctly here? Isn't this for locating sampling or measurement locations and not an OP for the operation of the HPGe unit?</p> <p>Can this survey requirement be satisfied by the recently conducted HPGe survey in the IA or the massive results in Appendix C?</p>	<p>Text corrected to reflect the correct EMD OPs GT.30 title: Insite Characterization for Radionuclides.</p>

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## REVIEW COMMENT RECORD CONTINUATION SHEET

35	E	5.2.2	<p>The sampling scenario for trenches which encounter the water table includes a sample immediately above the water table and the text says that the trench excavation will cease at that point. Apparently the pipeline will not be exposed if groundwater is encountered before the pipeline is encountered. Fig 5-1 shows an additional soil sample from below the bottom of the trench in the saturated zone. The text and figure are inconsistent.</p> <p>The text says a sample will be collected in the native soil immediately below the trench. This will not happen if the water table is found in the trench. Clarify.</p>	Figure 5-1. Example 3 indicates a soil sample will be collected directly above the water table. A groundwater sample will then be taken at the top of the water table, above the OPWL pipeline location. A native soil sample, beneath the OPWL pipeline, will be omitted in this example. Figure 5-1 is identical to figure 7.3 of the RF1/R1 Work Plan.
36	E	Fig 5-1	Add "Between Trench Bottom and the Water Table" after "(Omit If < 5 Feet" in Example 1.	Figure corrected to reflect change as noted.
37	E	Place Holder	The place holder is potential element for the resolution of the active tanks dispute in TM1 Vol 1. A place holder should not be referred to in Vol 2 until after the dispute is resolved. In the interim, investigation of active units should be described in other words which infer deferral without impacting the milestone schedule or the completion of the investigations of the other units in this TM.	The term "deferral" is used in the text instead of the term "place holder."

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AMER REVIEW OF TECHNICAL DOCUMENTS

REVIEW COMMENT RECORD

Document Reviewed OU9 TM1 - Pipelines	Reviewer: J. R. Burd Signature: Date: Sep 12, 94 Organization: ER/RFO	Agreement with Dispositions: Date: Reviewer: Document Preparer:
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\*Comment Type: E = Essential (agreement must be documented for other than verbatim incorporation); S = Suggested; Non-C = Nonconcurrence

Comment No.	Comment Type*	Para. No.	Comment	Disposition
1	E	TITLE	The title should include "Volume 2" as is stated in the second paragraph of Vol 1. That document states that TM1 will be separated into 2 volumes, one for the tanks and the second for pipelines. Paragraph 1 of this (the pipeline volume) says that this is Vol 2.	
2	E	1.0 - 2nd paragraph	Change CDH to CDPHE and properly spell out one time.	
3	E	1.0 - 3rd paragraph	Indicate that the subject is this TM. The last antecedent is the work plan.	
4	E	1.1	Indicate that IHSS number for the pipelines. The 2nd para. and table 1.1 indicate duplicate IHSS #s but do not specify IHSS 121 as the OPWL.	
5	E	1.1	Table 1.1 indicates which pipelines are part of the new process waste system (PWTS). Are the parts of the OPWL that are included in the PWTS active?	
6	S	1.1	Switch "OU4" and "the Solar Ponds" in the last sentence in the 3rd paragraph.	
7	E	1.1	The 4th paragraph refers to those pipeline sections that will not be investigated as part of this TM. They include sections that have been transferred to the PWTS, pipelines that are used in the fire plenum discharge system, and those to be removed as part of OU4. Table 1.1 should flag these pipelines as not being investigated under this TM.	

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8	E	1.1	The regulatory history of the OPWL should be included in the background section. This is important because it is essential to establish the closure options available especially for the active units. Our experience with the active tanks issue shows the need to be clear as early as possible with regulatory issues.	
9	E	1.1	Table 1-1 "comments" column should be checked against Appendix B of the OU9 Work Plan. The source of the information used to make this table should be referenced because the information in App B is not always consistent with the data presented. For instance comments for P-7 indicates that this line is PWTS but App B says that the current use is "abandoned." App B does not indicate that P-7 is part of the PWTS. P-18 is not referred to as an invalid location in App B.	
10	B	1.2	The last paragraph makes a weak statement that the OU9 investigation is being integrated with other Industrial Area OUs. Strengthen this statement with a reference to the Integrated FSP that was submitted to the agencies this summer. The agencies commented on the lack of coordination with other Industrial Area OUs in Vol 1 of this TM.	
11	E	2.1	We should have a bullet for any active OPWL pipelines that are not in active permits if any were identified. This would be consistent with plenum deluge tanks in Vol 1.	
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14	E	3.0 P-1	The text should reference the plate number on which the pipeline section is shown. This is true of all pipeline descriptions in this section.	
15	E	3.0 P-2	Plate 11 does not show P-2 as 452 feet total length. In fact, the plate shows P-2 but it seems to only exit Building 123.	

28/51  
SEP-23-94 FRI 14:11

FAX NO. 303 966 4728

P.04

# AMER REVIEW OF TECHNICAL DOCUMENTS

## REVIEW COMMENT RECORD CONTINUATION SHEET

16	S	3.0 P-3	The second and third man holes described in the site walk paragraph may not be shown on Plate 11. Was this intended because they do not seem to be associated with P-3?	
17	E	4.0	Better define or explain the bulleted items. How are these decision making issues? Use some other term than "stages" because that is a term used in the work plan. TM1 is the Stage 1 investigation.	

# AMER REVIEW OF TECHNICAL DOCUMENTS

## REVIEW COMMENT RECORD CONTINUATION SHEET

18	E	4.0 + Fig 4-1	<p>Can we at this time identify the pipeline sections that will be in the "Pipeline Dismissal from OU 9" box? This should have been determined by the site walk that preceded the TM preparation.</p> <p>Rename the "dismissal" box. It should not lead to the "Stage 1 Invest. Completion" box because the investigation will not be done if it is removed from OU9. Dismissal from OU9 is the end of the line for those systems.</p> <p>Pipelines that are used for other purposes (second bullet in the first box) will go in a place holder. Pipeline segments which have existence in question should not be dropped from OU9 until the non-existence is confirmed. Pipelines that are part of the PWTS probably will need confirmation of inclusion in an existing permit before regulators will permit removal from OU9. These will probably still go in a place holder until inactive (same as permitted active tanks such as T-24). The place holder will be outside of OU9 so that OU9 milestones are not impacted. These issues are currently under discussion via the dispute resolution process for the tanks in Vol 1 of this TM. See last comment.</p> <p>Explain the criteria for moving out of the "Pipeline Field Sampling" box directly to the "Stage 1 Invest. Completion" box. Conditions not conducive to soil disturbance is not sufficient for calling the investigation complete. These conditions may result in deferral of the investigation under the work plan provision (in Section 7.1) that "some abandoned pipelines and tanks ... cannot practically be investigated at this time due to the nature of the RFP and the potential for disruption of operations..." Operation of this box may lead to the place holder. See last comment.</p> <p>Explain the "Confirmation Soil Sampling" in the "Pipeline Integrity Evaluation" box. If this is sampling for previously removed tanks it should be in the previous box. Explain what confirmation soil sampling has to do with integrity evaluation if the bullet stays in this box.</p>	
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19	E	4.1	<p>We may be creating a situation that will make it more difficult to meet milestones by combining stage 1, 2, and 3 activities. Therefore, we must make all proposed stage 2 and 3 activities contingent on schedule relief. Can these activities convert to the PAM process outside of the TM investigation? If so this is a possible alternative to obtaining schedule relief; i.e., propose stage 2 &amp; 3 activities contingent upon schedule relief or as part of a PAM.</p> <p>Rationale for limiting the use of test pits can also be based on the exemption in the approved OU9 Work Plan that is quoted in part above in comment 18. Test pits may in some cases be disruptive to plant operations. This would be especially true of deep pits that require excessive cut slopes or large staging areas for materials, soil piles, and safety equipment or other equipment.</p>	
20	E	4.2	Clarify the statement in which the total number of test areas is actually greater than tentatively identified number of test areas. Based on the common locations of test areas for multiple pipelines, the total number should be less than the tentatively identified number.	
21	E	4.2	The paragraph after the bullets describing the investigation goals says that the appropriate sample method selected will be based on three criteria including "composition." Please explain what is meant by "composition."	
22	E	4.2	Groundwater samples from Geoprobe methods - Explain what criteria will be used to determine when these samples will be collected. Propose a method to collect these samples and evaluate the data without impacting schedule. Can this method convert into a PAM to separate it from the TM investigation and thereby not impact schedule?	

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## REVIEW COMMENT RECORD CONTINUATION SHEET

23	E	4.3	<p>Figure 4-2 has some of the same problems as fig 4-1. That is investigation of active pipelines cannot be deferred and then made a part of TM2. They must be removed from the TM1 investigation and put in a place holder. See last comment.</p> <p>If all or part of the pipeline is part on another OU, should it be automatically transferred to that OU? Why not determine the best place for it based on similarity of historic use, potential for early action, or probable consistent remedial action?</p> <p>Pipelines that are known to be active (see Table 4-8) or fit other criteria for deferring investigation should be identified in the text. This would assure that the regulators will be aware of DOE's intent and rationale can be included to minimize regulator objection. P-23 is part of the plenum deluge system and supports the vital safety system. If DOE is successful in the current dispute regarding active tanks that support this system the pipelines will automatically be excluded when identified.</p> <p>Delete "yes" after the "See Fig. 4-4..." box because this is not a decision point, there is not a "no" option.</p>	
24	E	Figs. 4-1 thru 4-4	<p>Follow logic through each path of these diagrams. There appears to be some logic "busts" as pointed out above. These logic diagrams must be reviewed as a group as they are inter-related. The inter-relation to Fig 4-1 is not clear, the start points for A through F should be located on 4-1 if applicable.</p>	
25	E	Table 4-2	<p>Check references in this table to Figs 4-1 to 4-4. In the second narrative box a reference is made to decision box 1.30, which is on Fig 4-2. 1.30 is not shown as a decision box, the appropriate reference is probably 1.20.</p>	

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26	E	4 General	"Dismissal" of pipelines from OU9 may need to be modified based on the results of dispute resolution of the active tanks issues under TM1 Vol 1 that are now underway. Active units may be removed from current investigations beyond the stage 1 "nature of contamination" type sampling, may remain in OU9, and take a delayed path toward closure. These units would be separated from the process leading toward IAG milestones. Therefore, revision of Vol 2 should be consistent with the results of the Vol 1 dispute regarding handling of active tanks.	
27	E	Sec 4 Table	The tables should reference the appropriate figure; i.e. Table 4-2 should reference Fig 4-2, Table 4-3 should reference in the table heading Fig 4-3, and Table 4-5 should reference Fig 4-4.	
28	E	4.3.3	Delete "or simply move on the next pipeline to be investigated" from the second to last sentence. Investigation of the different pipeline segments should not be linked. This section does not mention dismissal from OU9, which is the topic stated in the heading.	
29	S	4.3.4	Change the wording of the 2nd sentence to eliminate the "was determined to be" wording.	
30	E	4.3.4.1	Table 4-4 in step 3.82 says "collect residue/wipe sample from access." How is this to be done if the pipeline was not exposed by a test pit? This box can be reached by soil sampling from auger drilling or hydraulic sampling methods which would not provide access to the pipeline.  Table 4-4 after step 4.10 has a "go to D" road sign, but this road sign is shown as a fork without necessary decision criteria. One fork at this road sign goes nowhere. Step 4.11 at this same location is missing.	
31	E	4.3.4.2	Reword the last sentence "They also allow for future disposal criteria."	

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32	B	4.3.5.1	Confirmation soil sampling as proposed in the TM at 25 foot centers along the entire pipeline system will be extensive and is not proposed in the approved work plan. This is similar to a Stage 2 proposal to sample soils at 20 foot intervals between test pits that were contaminated. This section must be revised to propose sampling only if contamination is found in the test areas sampled. The observational approach will be used to indicate which areas will be sampled at 20 or 25 foot centers.	
33	E	General	We should have data from pervious data compilation activities as specified in Sections 7.2.4 and 7.3.1 of the Work Plan that will guide the investigation under TM1 and the Stage 1 sampling. It appears that TM1 is still gathering data that was to be the basis for its preparation (W.P. Sec 7.2.4). The TM should specify that the data compilation process already conducted did not provide the information needed to designate sample locations in TM1 and the statement should support this situation with a list of actions conducted during data compilation that were unsuccessful in providing the data. This is necessary to document that the data compilation actions described in the work plan were conducted and that this volume is not deficient.	
34	B	5.1.2	Is the EMD OPs GT.30, <i>Autonomous Operation of Global Positioning Equipment</i> used correctly here? Isn't this for locating sampling or measurement locations and not an OP for the operation of the HPGe unit?  Can this survey requirement be satisfied by the recently conducted HPGe survey in the IA or the massive results in Appendix C?	

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35	E	5.2.2	<p>The sampling scenario for trenches which encounter the water table includes a sample immediately above the water table and the text says that the trench excavation will cease at that point. Apparently the pipeline will not be exposed if groundwater is encountered before the pipeline is encountered. Fig 5-1 shows an additional soil sample from below the bottom of the trench in the saturated zone. The text and figure are inconsistent.</p> <p>The text says a sample will be collected in the native soil immediately below the trench. This will not happen if the water table is found in the trench. Clarify.</p>	
36	E	Fig 5-1	Add "Between Trench Bottom and the Water Table" after "(Omit If < 5 Feet" in Example 1.	
37	E	Place Holder	The place holder is a potential element for the resolution of the active tanks dispute in TMI Vol 1. A place holder should not be referred to in Vol 2 until after the dispute is resolved. In the interim, investigation of active units should be described in other words which infer deferral without impacting the milestone schedule or the completion of the investigations of the other units in this TM.	

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REVIEW COMMENT RECORD

Document Reviewed: OU9, TM 1 Pipelines, Addendum to Phase I RFI/RI Work Plan, Section 3			Reviewer: Terry McLeod	Agreement with Dispositions:
			Signature:	Date:
			Date: Phone: x 4767	Reviewer:
			Organization: ER/RFO	Document Preparer:
*Comment Type: E = Essential (agreement must be documented for other than verbatim incorporation); S = Suggested; Non-C = Nonconcurrency				
Comment No.	Comment Type*	Para. No.	Comment	Disposition
1	E	ALL	Section 3 should be subdivided by OPWL lines... OPWL P-1 should be 3.1. The next paragraph should be 3.1.1 Location. The next, 3.1.2 Status, and continuing. The section is so long it needs to have some format to aid in reading and comment resolution.	
2	E	ALL	In the Wastes Transferred sections of all the OPWL listings, the "Rads" should be changed to "Radioactives" or to Radioactive Materials" for clarity.	
3	E	ALL	No reference in text is made to the plates enclosed with the TM. Adding plate numbers to each section would enhance understanding of the text and give the plates some purpose in this TM.	
4	E	All Plates	Each plate should have the portrayed OPWL lines printed in their legends. Furthermore, each plate should have excess information removed from them such as electrical lines that are nowhere near OPWL lines or should have some purpose delineated in text.	
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